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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/628,508

07/29/2003

Yin-Sheng Liao

LIAO3059/EM

5077

23364

7590

05/02/2006

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EXAMINER

BELT, SAMUEL E

ART UNIT

PAPER NUMBER

3746

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/628,508

Applicant(s)

LIAO, YIN-SHENG

Examiner

Samuel E. Belt

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3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### **Claim Rejections - 35 USC § 112, second paragraph**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Both claims 5 & 6 disclose that the male and female connectors control the direction of the current flowing in the coils of the motor. It is unclear in how the connectors themselves control the current, being that electrical connector are used to connect electrical paths not control them.

Clarification and/or correction are required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1- 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao (US Patent 6,211,632) in view of Hart (US Patent 4,719,446).

Liao discloses a direction control device for a ceiling fan which comprises: a direction control circuit (Fig. 1, item 10) arranged in the switch box (Fig.1, item 10) of the ceiling fan; a remote receiver (Fig.1, item 20); wherein said remote receiver is connected with conducting wires (column 2, Lines 18+) that are electrically connected to the direction control circuit (Fig.1, item 10) by a set of connectors (Fig.1, items 120, 12) via the canopy (Fig.1, item 83), the hanger rod (Fig.1, item 82) and the body (Fig.1, item 80); wherein the set of connectors is composed of a female connector (Fig.1, item 12) electrically connected to the direction control circuit (Fig.1, item 10) and a male connector (Fig.1, item 120) electrically connected with the conducting wires and connection lines of the motor, wherein the male and female connectors are correspondingly connected together whereby the direction control circuit is electrically connected to the remote receiver.

The Liao device differs from the claimed invention in that there is no explicit teaching of the remote receiver being arranged in an exterior position away from the ceiling fan. Hart teaches a remote control system for a ceiling fan having a remote receiver for electrical substitution of the wall switch in a house (column 1, lines 1+). It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to modify the Liao device by placing the remote receiver in the wall as taught by Hart, in order to allow an existing ceiling fan to be remotely controlled without having to

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modify any of the existing electrical wiring between the wall switch and the fan (column 1, lines 12+).

In regard to claims 5 & 6 Liao discloses a direction control device as described above, which is substantially analogous to the claimed invention. The Liao device differs from the claimed invention in that there is no explicit teaching of having the input power come through an activation capacitor. Hart teaches a remote control system for a ceiling fan having a wall control (an activation means) with a capacitor (Fig. 2, item 62). It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to modify the Liao device by using the activation capacitor as taught by Hart, in order to better control the power supply to the ceiling fan.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel E. Belt whose telephone number is (571) 272-7820. The examiner can normally be reached on M-F, 8 - 4:30EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Thorpe can be reached on (571) 272-4444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SEB



Samuel E. Belt

04/28/2006



CHARLES G. FREAY  
PRIMARY EXAMINER